

## SEQUENCE LISTING

<110> Rajgarhia, Vineet  
 <120> Methods and materials for synthesis of organic products  
 <130> 00-1237-A  
 <140> 09  
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 <150> 60/252,541  
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<213> *Lactobacillus helveticus*

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31

<210> 4

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<212> DNA

<213> *Lactobacillus helveticus*

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ccaagatctt tattgacgaa ccttaacgcc ag

32

<210> 5

<211> 37

<212> DNA

<213> *Pediococcus acidilactici*

<400> 5

ccgggatcca tgtctaatat tcaaaatcat caaaaag

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<211> 33

<212> DNA

<213> *Pediococcus acidilactici*

<400> 6

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33

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<211> 82

<212> DNA

<213> *Kluyveromyces marxianus*

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<210> 8

<211> 79

<212> DNA

<213> Kluyveromyces marxianus

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gccggtagag gtgtgggtca

79

<210> 9

<211> 1736

<212> DNA

<213> kanamycin resistance gene

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120

gtcagcagca tagggaaaca cggcttttcc taccaaactc aaggaattat caaactctgc

180

aacacttgcg tatgcaggta gcaagggaaa tgtcatactt gaagtcggac agtgagtgtg

240

gtcttgagaa attctgaagc cgtattttta ttatcagtga gtcagtcatc aggagatcct

300

ctacgccgga cgcacgtgg ccgacctgca gggggggggg gggcgctgag gtctgcctcg

360

tgaagaaggt gttgctgact cataccaggc ctgaatcgcc ccatcatcca gccagaaagt

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gagggagcca cggttgatga gagctttgtt gtaggtggac cagtttgtga ttttgaactt

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cagtgttaca accaattaac caattctgat tagaaaaact catcgagcat caaatgaaac  
660

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720

gaaggagaaa actcaccgag gcagttccat aggatggcaa gatcctggta tcggtctgcg  
780

attccgactc gtccaacatc aatacaacct ttaatttccc ctcgtaaaaa ataaggttat  
840

caagtgagaa atcaccatga gtgacgactg aatccgggtga gaatggcaaa agcttatgca  
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ttctttccag acttgttcaa caggccagcc attacgctcg tcatcaaaat cactcgcatc  
960

aaccaaaccg ttattcattc gtgattgogc ctgagcgaga cgaaatacgc gatcgctggt  
1020

aaaaggacaa ttacaaacag gaatcgaatg caaccggcgc aggaacactg ccagcgcac  
1080

aacaatattt tcacctgaat caggatattc ttctaatacc tggaatgctg ttttcccggg  
1140

gatcgcagtg gtgagtaacc atgcatcatc aggagtacgg ataaaatgct tgatggtcgg  
1200

aagaggcata aattccgtca gccagtttag tctgaccatc tcattctgtaa catcattggc  
1260

aacgctacct ttgccatggt tcagaaacaa ctctggcgca tcgggcttcc catacaatcg  
1320

atagattgtc gcacctgatt gcccgacatt atcgcgagcc catttatacc catataaatc  
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agcatccatg ttggaattta atcgcggcct cgagcaagac gtttcccgtt gaatatggct  
1440

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1560

ccccctgcag gtcggcatca cgggcgccac aggtgcgggt gctggcgctt atatcgccga  
1620

catcacgat ggggaagatc gggctcgcca cttcgggctc atgagcgctt gtttcggcgt  
1680

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1736

<210> 10

<211> 372

<212> DNA

<213> Kluyveromyces marxianus

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120

tgaccaaggt caaggatgct gctaagggtt acaagccagt tccagttcct cacgctccaa  
180

gagacaacaa gccagttgct gactctactc cattgaagca agaatgggtc tggactcaag  
240

tcggttaagtt cctacaagaa ggtgatgttg ttctaactga aaccgggtacc tccgctttcg  
300

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ccattggttt ca  
372

<210> 11  
<211> 747  
<212> DNA  
<213> Kluyveromyces thermotolerans

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120

acgcttacgc cagaatcaag ggtatgtcct gtttgatcac caccttcggt gtcggtgagt  
180

tgtccgcttt gaacgggtatc gccggttctt acgctgagca cgtcgggtgtc ttgcacattg  
240

tcgggtgtccc atccgtctcc gccaggcca agcagctatt gttgcaccac accttgggta  
300

acgggtgactt cactgtcttc cacagaatgt ccgccaacat ctctgagacc actgctatga  
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tcactgatct agctaccgcc ccactctgaga tcgacagatg tatcagaacc acctacatta  
420

gacagagacc tgtctacttg ggtttgccat ctaacttcgt tgaccagatg gtcccagcct  
480

ctctattgga caccccaatt gacttggcct tgaagccaaa cgaccagcag gctgaggagg  
540

aggtcattct tactttgttg gagatgatca aggacgctaa gaaccagtc atcttggctg  
600

acgcttgccg ttccagacac gatgtcaagg ctgagaccaa gaagttgatt gacatcactc  
660

agttcccatc tttcgttacc ccaatgggta agggttccat tgacgagaag cacccaagat  
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747

<210> 12  
<211> 1738  
<212> DNA  
<213> kanamycin resistance gene fragment

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120

gtcagcagca tagggaaaca cggcttttcc taccaaactc aaggaattat caaactctgc  
180

aacacttgcg tatgcaggta gcaagggaaa tgtcatactt gaagtcggac agtgagtgtg  
240

gtcttgagaa attctgaagc cgtattttta ttatcagtga gtcagtcatc aggagatcct  
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ctacgccgga cgcacgtggg ccgacctgca gggggggggg gggcgctgag gtctgcctcg  
360

tgaagaaggt gttgctgact cataccaggc ctgaatcgcc ccatcatcca gccagaaagt  
420

gagggagcca cggttgatga gagctttggt gtaggtggac cagttggtga ttttgaactt  
480

ttgctttgcc acggaacggt ctgcgttgtc gggaagatgc gtgatctgat ccttcaactc  
540

agcaaaagtt cgatttatte aacaaagccg ccgtcccgtc aagtcagcgt aatgctctgc  
600

cagtgttaca accaattaac caattctgat tagaaaaact catcgagcat caaatgaaac  
660

tgcaatttat tcatatcagg attatcaata ccatatTTTT gaaaaagccg tttctgtaat  
720

gaaggagaaa actcacgag gcagttccat aggatggcaa gatcctggta tcggtctgcg  
780

attccgactc gtccaacatc aatacaacct attaatctcc cctcgtcaaa aataaggtta  
840

tcaagtgaga aatcaccatg agtgacgact gaatccggtg agaatggcaa aagcttatgc  
900

atttctttcc agacttggtc aacaggccag ccattacgct cgtcatcaaa atcactcgca  
960

tcaaccaaac cgttattcat tcgtgattgc gcctgagcga gacgaaatac gcgatcgctg  
1020

ttaaaaggac aattacaaac aggaatcgaa tgcaaccggc gcaggaacac tgccagcgca  
1080

tcaacaatat ttccacctga atcaggatat tcttctaata cctggaatgc tgttttcccc  
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1200

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1260

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1320

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1380

tcagcatcca tgttggaatt taatcgcggc ctcgagcaag acgtttcccc ttgaatatgg  
1440

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1500

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gacatcaccg atggggaaga tcgggctcgc caattcgggc tcatgagcgc ttgtttcggc  
1680



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1738

<210> 13

<211> 17

<212> DNA

<213> artificial sequence - degenerate amplification primers

<400> 13

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17

<210> 14

<211> 17

<212> DNA

<213> artificial sequence - degenerate amplification primers

<400> 14

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17

<210> 15

<211> 22

<212> DNA

<213> artificial sequence - amplification primers

<400> 15

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22

<210> 16

<211> 18

<212> DNA

<213> artificial sequence - amplification primers

<400> 16

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18

<210> 17

<211> 19

<212> DNA  
<213> Kluyveromyces thermotolerans

<400> 17  
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<210> 18  
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<400> 18  
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21

<210> 19  
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<400> 19  
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21

<210> 20  
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<212> DNA  
<213> Kluyveromyces thermotolerans

<400> 20  
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<210> 21  
<211> 972  
<212> DNA  
<213> Kluyveromyces thermotolerans

<400> 21  
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120

gtttccgaga ttgtccttat cgacgtgaac aaagacaaag cagaggggtga aagcatggac  
180

ttaaaccacg cagcaccttc aaatacaagg tctcgagcgg gtgattatcc tgactgcgct  
240

ggcgcggcca ttgttattgt cacatgtggg attaaccaaa aaaatggaca aacaaggatg  
300

gatcttgctg caaaaaatgc caacattatg ctggaaatca tccccaatgt tgccaaatat  
360

gctcctgata ccaccttgct tattgccacg aatcctgtcg atgttttgac ctatattagc  
420

tataaggcgt cagggtttcc actaagcaga gttatcggct caggtacagt tctggatact  
480

gctcgtttta aatacatcct cggagagcac ttcaagatct catcggacag catcgatgcc  
540

tgtgtaattg gagaacatgg tgattcgggt gtgcctgtct ggtctcttac caacatcgac  
600

ggcatgaagc tccgggatta ctgcgaaaaa gcccaaccaca tatttgatca gaatgcgttc  
660

catagaatct ttgagcaaac gcgagacgct gcttacgata tcataaagcg caaaggctat  
720

acttcatatg gaatcgcagc gggattactt cgcatagtaa aggcgatttt agaggataca  
780

ggatccacac ttacagtttc aaccgttggt gattattttg gggttgaaca aattgctata  
840

agcgtcccta ccaaactcaa taaaagtggg gctcatcaag tggetgaact ttcactcgat  
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gagaaggaaa tagaattgat ggaaaaatca gctagtcaga tcaaatcagt gattgagcat  
960

ctggagatca at  
972

<210> 22  
<211> 323  
<212> PRT  
<213> Kluyveromyces thermotolerans  
  
<400> 22

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20 25 30

Tyr Thr Leu Leu Leu Ser Gly Ile Val Ser Glu Ile Val Leu Ile Asp  
35 40 45

Val Asn Lys Asp Lys Ala Glu Gly Glu Ser Met Asp Leu Asn His Ala  
50 55 60

Ala Pro Ser Asn Thr Arg Ser Arg Ala Gly Asp Tyr Pro Asp Cys Ala  
65 70 75 80

Gly Ala Ala Ile Val Ile Val Thr Cys Gly Ile Asn Gln Lys Asn Gly  
85 90 95

Gln Thr Arg Met Asp Leu Ala Ala Lys Asn Ala Asn Ile Met Leu Glu  
100 105 110

Ile Ile Pro Asn Val Ala Lys Tyr Ala Pro Asp Thr Ile Leu Leu Ile  
115 120 125

Ala Thr Asn Pro Val Asp Val Leu Thr Tyr Ile Ser Tyr Lys Ala Ser  
130 135 140

Gly Phe Pro Leu Ser Arg Val Ile Gly Ser Gly Thr Val Leu Asp Thr  
 145 150 155 160

Ala Arg Phe Lys Tyr Ile Leu Gly Glu His Phe Lys Ile Ser Ser Asp  
 165 170 175

Ser Ile Asp Ala Cys Val Ile Gly Glu His Gly Asp Gly Val Pro Val  
 180 185 190

Trp Ser Leu Thr Asn Ile Asp Gly Met Lys Leu Arg Asp Tyr Cys Glu  
 195 200 205

Lys Ala Asn His Ile Phe Asp Gln Asn Ala Phe His Arg Ile Phe Glu  
 210 215 220

Gln Thr Arg Asp Ala Ala Tyr Asp Ile Ile Lys Arg Lys Gly Tyr Thr  
 225 230 235 240

Ser Tyr Gly Ile Ala Ala Gly Leu Leu Arg Ile Val Lys Ala Ile Leu  
 245 250 255

Glu Asp Thr Gly Ser Thr Leu Thr Val Ser Thr Val Gly Asp Tyr Phe  
 260 265 270

Gly Val Glu Gln Ile Ala Ile Ser Val Pro Thr Lys Leu Asn Lys Ser  
 275 280 285

Gly Ala His Gln Val Ala Glu Leu Ser Leu Asp Glu Lys Glu Ile Glu  
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Glu Ile Asn

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<210> 25  
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<212> DNA  
<213> artificial sequence - amplification primers

<400> 25  
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<210> 26  
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<213> artificial sequence - amplification primers

<400> 26  
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<210> 27  
<211> 27  
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<213> artificial sequence - amplification primers

<400> 27

aacattgaat agcttgctca ggttggtg  
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<210> 28

<211> 28

<212> DNA

<213> artificial sequence - amplification primers

<400> 28

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28

<210> 29

<211> 939

<212> DNA

<213> *Torulaspora pretoriensis*

<220>

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<222> (1)..(939)

<223>

<400> 29

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48

Met His Arg Cys Ala Lys Val Ala Ile Val Gly Ala Gly Gln Val Gly

1

5

10

15

tcc aca aca gct tac acg tta tta ttg agt agt ttg gtt gct gaa gtg  
96

Ser Thr Thr Ala Tyr Thr Leu Leu Leu Ser Ser Leu Val Ala Glu Val

20

25

30

gtg ttg ata gat gtc gat aaa aga aag gtc gaa ggc caa ttt atg gat  
144

Val Leu Ile Asp Val Asp Lys Arg Lys Val Glu Gly Gln Phe Met Asp

35

40

45

ctg aac cac gcg gct cct tta acg aag gag tca cga ttc agt gct ggg  
192

Leu Asn His Ala Ala Pro Leu Thr Lys Glu Ser Arg Phe Ser Ala Gly

50

55

60

gac tat gaa agt tgt gct gat gct gcg gtt gta atc gta acg ggc ggg  
240

Asp Tyr Glu Ser Cys Ala Asp Ala Ala Val Val Ile Val Thr Gly Gly

65

70

75

80

gct aat cag aaa cct ggt caa act aga atg gag cta gcc gag agg aac  
288

Ala Asn Gln Lys Pro Gly Gln Thr Arg Met Glu Leu Ala Glu Arg Asn

85

90

95

gtt aaa atc atg cag gaa gtg atc cct aag att gtg aaa tac gcc ccc  
336

Val Lys Ile Met Gln Glu Val Ile Pro Lys Ile Val Lys Tyr Ala Pro

100

105

110

aac gca att ttg ctg att gca aca aac cct gtc gat gta ctt acc tat  
384

Asn Ala Ile Leu Leu Ile Ala Thr Asn Pro Val Asp Val Leu Thr Tyr

115

120

125

gct agt ttg aaa gcg tcg gga ttc cca gca agc cgg gtt att ggt tct  
432

Ala Ser Leu Lys Ala Ser Gly Phe Pro Ala Ser Arg Val Ile Gly Ser

130

135

140



ggg aca gtt ctc gac tct gct cgt ata cag cac aac ctg agc aag cta  
480

Gly Thr Val Leu Asp Ser Ala Arg Ile Gln His Asn Leu Ser Lys Leu

145 150 155 160

ttc aat gtt tca tct gaa agt gtc aac gcg ttt att atc ggg gaa cat  
528

Phe Asn Val Ser Ser Glu Ser Val Asn Ala Phe Ile Ile Gly Glu His

165 170 175

ggt gac tca agt gtg ccc gtc tgg tcg ctt gct gag att gcc ggc atg  
576

Gly Asp Ser Ser Val Pro Val Trp Ser Leu Ala Glu Ile Ala Gly Met

180 185 190

aaa gtg gag gat tac tgt agg cag tcc aag aga aag ttt gac ccc agc  
624

Lys Val Glu Asp Tyr Cys Arg Gln Ser Lys Arg Lys Phe Asp Pro Ser

195 200 205

att ctg acc aaa ata tat gag gag tcg cgt gac gcg gca gcc tac atc  
672

Ile Leu Thr Lys Ile Tyr Glu Glu Ser Arg Asp Ala Ala Ala Tyr Ile

210 215 220

ata gaa cgc aaa ggc tat acc aat ttc ggg att gca gca ggt ttg gct  
720

Ile Glu Arg Lys Gly Tyr Thr Asn Phe Gly Ile Ala Ala Gly Leu Ala

225 230 235 240

agg ata gtg aga gct att ctg aga gat gaa ggt gcc cta tta act gtg  
768

Arg Ile Val Arg Ala Ile Leu Arg Asp Glu Gly Ala Leu Leu Thr Val

245

250

255

tct act gta ggt gag cac ttt ggc atg aaa gat gtt tca ttg agt gtt  
816

Ser Thr Val Gly Glu His Phe Gly Met Lys Asp Val Ser Leu Ser Val

260

265

270

cca act agg gta gac agg agc ggc gct cac cat gtc gtc gac ctt ctg  
864

Pro Thr Arg Val Asp Arg Ser Gly Ala His His Val Val Asp Leu Leu

275

280

285

cta aac gac aag gag ctg gag caa att aaa aca tct gga gcc aag ata  
912

Leu Asn Asp Lys Glu Leu Glu Gln Ile Lys Thr Ser Gly Ala Lys Ile

290

295

300

aag tca gcc tgt gat gaa ctt ggc att  
939

Lys Ser Ala Cys Asp Glu Leu Gly Ile

305

310

&lt;210&gt; 30

&lt;211&gt; 313

&lt;212&gt; PRT

<213> *Torulaspora pretoriensis*

&lt;400&gt; 30

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20 25 30

Val Leu Ile Asp Val Asp Lys Arg Lys Val Glu Gly Gln Phe Met Asp  
35 40 45

Leu Asn His Ala Ala Pro Leu Thr Lys Glu Ser Arg Phe Ser Ala Gly  
50 55 60

Asp Tyr Glu Ser Cys Ala Asp Ala Ala Val Val Ile Val Thr Gly Gly  
65 70 75 80

Ala Asn Gln Lys Pro Gly Gln Thr Arg Met Glu Leu Ala Glu Arg Asn  
85 90 95

Val Lys Ile Met Gln Glu Val Ile Pro Lys Ile Val Lys Tyr Ala Pro  
100 105 110

Asn Ala Ile Leu Leu Ile Ala Thr Asn Pro Val Asp Val Leu Thr Tyr  
115 120 125

Ala Ser Leu Lys Ala Ser Gly Phe Pro Ala Ser Arg Val Ile Gly Ser  
130 135 140

Gly Thr Val Leu Asp Ser Ala Arg Ile Gln His Asn Leu Ser Lys Leu  
145 150 155 160

Phe Asn Val Ser Ser Glu Ser Val Asn Ala Phe Ile Ile Gly Glu His  
165 170 175

Gly Asp Ser Ser Val Pro Val Trp Ser Leu Ala Glu Ile Ala Gly Met  
180 185 190

Lys Val Glu Asp Tyr Cys Arg Gln Ser Lys Arg Lys Phe Asp Pro Ser  
195 200 205

Ile Leu Thr Lys Ile Tyr Glu Glu Ser Arg Asp Ala Ala Ala Tyr Ile

210

215

220

Ile Glu Arg Lys Gly Tyr Thr Asn Phe Gly Ile Ala Ala Gly Leu Ala  
 225 230 235 240

Arg Ile Val Arg Ala Ile Leu Arg Asp Glu Gly Ala Leu Leu Thr Val  
 245 250 255

Ser Thr Val Gly Glu His Phe Gly Met Lys Asp Val Ser Leu Ser Val  
 260 265 270

Pro Thr Arg Val Asp Arg Ser Gly Ala His His Val Val Asp Leu Leu  
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Leu Asn Asp Lys Glu Leu Glu Gln Ile Lys Thr Ser Gly Ala Lys Ile  
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Lys Ser Ala Cys Asp Glu Leu Gly Ile  
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<210> 31

<211> 21

<212> DNA

<213> Bacillus megaterium

<400> 31

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<210> 32

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<213> Rhizopus oryzae

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<210> 36  
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<210> 37  
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<400> 37  
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29

<210> 38  
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<400> 38  
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30

<210> 39  
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<213> artificial sequence

<220>  
<223> cloning site sequence

<400> 39  
aaatctagat gagccatatt caacggga  
28

<210> 40  
<211> 29  
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<213> artificial sequence

<220>  
<223> cloning site sequence

<400> 40  
ccggatcctt agaaaaactc atcgagcat  
29

<210> 41  
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<213> Kluyveromyces thermotolerans

<400> 41  
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36

<210> 42  
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<213> Kluyveromyces thermotolerans

<400> 42  
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120

tgcacaatag gcatttgcaa gaattactcg tgagtaagga aagagtgagg aactatcgca  
180

tacctgcatt taaagatgcc gatttggggc cgaatccttt attttggctt caccctcata  
240

ctattatcag ggccagaaaa aggaagtgtt tccttccttc ttgaattgat gttaccctca  
300

taaagcacgt ggctcttat cgagaaagaa attacgctcg ctcgatgattt gtttgcaaaa  
360

agaacaaaac tgaaaaaacc cagacacgct cgacttcctg tcttcctatt gattgcagct  
420

tccaatttcg tcacacaaca aggtcctagc gacggctcac aggttttgta acaagcaatc  
480

gaaggttctg gaatggcggg aaagggttta gtaccacatg ctatgatgcc cactgtgatc

540

tccagagcaa agttcgttcg atcgtactgt tactctctct ctttcaaaca gaattgtccg  
600

aatcgtgtga caacaacagc ctgttctcac acactctttt cttctaacca aggggggtggt  
660

ttagtttagt agaacctcgt gaaacttaca ttacatata tataaacttg cataaattgg  
720

tcaatgcaag aaatacatat ttggctcttt ctaattcgta gtttttcaag ttcttagatg  
780

ctttcttttt ctctttttta cagatcatca aggaagtaat tatctacttt ttacaacaaa  
840

tctagaatta tgttccaaga taaaaagtct caagcagtaa gaactgatgc caaaacagta  
900

aaagttgtgg tagtgggagt gggaagtgtt gggctctgcc cagcgtatac gttgcttctc  
960

agcggcatcg tttccgagat tgtccttata gacgtgaaca aagacaaagc agagggtgaa  
1020

agcatggact taaaccacgc agcaccttca aatacaaggt ctcgagcggg tgattatcct  
1080

gactgcgctg gcgcggccat tgttattgtc acatgtggga ttaacaaaaa aaatggacaa  
1140

acaaggatgg atcttgctgc aaaaaatgcc aacattatgc tggaaatcat cccaatggt  
1200

gccaatatg ctctgatac catcctgctt attgccacga atcctgtcga tgttttgacc  
1260

tatattagct ataaggcgtc agggtttcca ctaagcagag ttatcggctc aggtacagtt  
1320

ctggatactg ctcgttttta atacatcctc ggagagcaact tcaagatctc atoggacagc  
1380

atcgatgcct gtgtaattgg agaacatggt gattcgggtg tgccctgtctg gtctcttacc  
1440



aacatcgacg gcatgaagct ccgggattac tgcgaaaaag ccaaccacat atttgatcag  
1500

aatgcgttcc atagaatctt tgagcaaacg cgagacgctg cttacgatat catcaagcgc  
1560

aaaggctata cttcatatgg aatcgcagcg ggattacttc gcatagtaaa ggcgatttta  
1620

gaggatacag gatccacact tacagtttca accgttggtg attattttgg ggttgaacaa  
1680

attgctataa gcgtccctac caaactcaat aaaagtgggg ctcatcaagt ggctgaactt  
1740

tcaactcgatg agaaggaaat agaattgatg gaaaaatcag ctagtcagat caaatcagtg  
1800

attgagcatc tggagatcaa ttgaggatga attcggatcc ggtagatata ttgatgctat  
1860

caatccagag aactggaaag attgtgtagc cttgaaaaac ggtgaaactt acgggtccaa  
1920

gattgtctac agattttcct gatttgccag cttactatcc ttcttgaaaa tatgcaactc  
1980

atatctttta gttcttaatt gcaacacata gatttgctgt ataacgaatt ttatgctatt  
2040

ttttaaaattt ggagtttcagt gataaaagtg tcacagcgaa tttcctcaca tgtagggacc  
2100

gaattgttta caagtttctt gtaccaccat ggagacatca aaaattgaaa atctatggaa  
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agatatggac ggtagcaaca agaatatagc acgagccgcg gatttatttc gttacgcag  
2220

cgcggccgc  
2229

<210> 44

<211> 32

<212> DNA  
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<400> 44  
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<210> 45  
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 <212> DNA  
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<400> 45  
 ctagtctaga gatcattacg ccagcatcct agg  
 33

<210> 46  
 <211> 37  
 <212> DNA  
 <213> Candida albicans

<400> 46  
 gcgatctcga ggtcctagaa tatgtatact aatttgc  
 37

<210> 47  
 <211> 36  
 <212> DNA  
 <213> Candida albicans

<400> 47  
 acttggccat ggtgatagtt attcttctgc aattga  
 36

<210> 48  
 <211> 20  
 <212> DNA  
 <213> Saccharomyces cerevisiae

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 tgtcatcact gctccatctt  
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<210> 49  
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<212> DNA  
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<400> 49  
ttaagccttg gcaacatatt  
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<210> 50  
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<400> 50  
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37

<210> 51  
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<213> *Candida albicans*

<400> 51  
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39

<210> 52  
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<213> *Candida sonorensis*

<400> 52  
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32

<210> 53  
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<213> *Candida sonorensis*

<400> 53  
ctagtctaga gatcattacg ccagcatcct agg  
33

<210> 54  
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<212> DNA  
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<400> 54  
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<210> 55  
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<223> primer that does not encode amino acid

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Trp Ala Gly Asn Ala Asn Glu Leu Asn Ala

1 5 10

<210> 57  
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<400> 57

Asp Phe Asn Thr Gly Ser Phe Ser Tyr Ser  
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<210> 58  
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<400> 58  
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<210> 59  
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 <212> DNA  
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<400> 59  
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<210> 60  
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<400> 60  
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<210> 61  
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<212> DNA

<213> Candida sonorensis

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68

<210> 62

<211> 34

<212> DNA

<213> Candida sonorensis

<400> 62

gcgatctcga gaaaatgtta ttataacact acac  
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<210> 63

<211> 75

<212> DNA

<213> Candida sonorensis

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ttttgttttt gtttg

75

<210> 64

<211> 36

<212> DNA

<213> Candida sonorensis

<400> 64

gcgatctcga gaaagaaacg acccatccaa gtgatg  
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<210> 65

<211> 35

<212> DNA

<213> Candida sonorensis

<400> 65

acttggccat ggtatatagt cttttctatt attag

35